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CHRONICLE OF THE WORLD HEALTH ORGANIZATION

THE WORK OF WHO: 1953

A Review of the Annual Report of the Director-General

WORLD HEALTH ORGANIZATION
PALAIS DES NATIONS
GENEVA

1/9 $0.25 Sw. fr. 1.—

The World Health Organization (WHO) is a specialized agency of the United Nations and represents the culmination of efforts to establish a single intergovernmental health agency. As such, it inherits the functions of antecedent organizations such as the Office International d'Hygiène Publique, the Health Organization of the League of Nations, and the Health Division of UNRRA.

WHO had its origin in the proposal made at the United Nations Conference held in San Francisco in 1945 that a specialized agency be created to deal with all matters relating to health. In 1946, representatives of 61 governments met at the International Health Conference, New York, drafted and signed the WHO Constitution, and established an Interim Commission to serve until the Constitution could be ratified by 26 Member States of the United Nations. The Constitution came into force on 7 April 1948, the first World Health Assembly met in Geneva in June 1948, and on 1 September 1948 the permanent Organization was established.

The work of the Organization is carried out by three organs : the World Health Assembly, the supreme authority, to which all Member States send delegates; the Executive Board, the executive organ of the Health Assembly, consisting of 18 persons designated by as many Member States; and a Secretariat under the Director-General.

The scope of WHO's interests and activities exceeds that of any previous international health organization and includes, in addition to major projects relating to malaria, tuberculosis, venereal diseases and treponematoses, maternal and child health, nutrition, and environmental sanitation, special programmes on public-health administration, epidemic diseases, mental health, professional and technical training, and other public-health subjects. It is also continuing work begun by earlier organizations on biological standardization, unification of pharmacopoeias, addiction-producing drugs, health statistics, international sanitary regulations, and the collection and dissemination of technical information, including epidemiological statistics.

* * *

The *Chronicle of the World Health Organization* is published in English, French, Spanish, and Chinese editions. It contains general information on the Organization, its principal activities, the meetings of its expert committees and other advisory bodies, as well as summaries of its main technical publications. Material from the *Chronicle* may be reproduced in the professional press, providing due acknowledgement is made.

Subscription for 1954 . .	17/6	$2.50	Sw. fr. 10.—
Price per copy	1/9	$0.25	Sw. fr. 1.—

A specimen number will be sent free of charge on request.

VOL. 8, No. 5 MAY 1954

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SCHEDULE OF MEETINGS

4 May	**Seventh World Health Assembly, Geneva** On the agenda of this Health Assembly, in addition to review and approval of the reports of the Executive Board (twelfth and thirteenth sessions) and of the Director-General on the work of WHO in 1953, are amendments to the Constitution relative to membership of the Executive Board, award of the Léon Bernard Foundation Prize, presentation of the Darling Foundation medals and prizes, consideration of the question of technical discussions at future Health Assemblies, and the customary matters concerning programme and budget, and administration, finance, and legal problems. The topic of the technical discussions will be "Public-Health Problems in Rural Areas".
27 May	**Executive Board, fourteenth session, Geneva**
14-19 June	**Conference on School Health Services, Grenoble**
23 June-3 July	**Expert Committee on the International Pharmacopoeia, thirteenth session, Geneva**

PRINTED IN SWITZERLAND

THE WORK OF WHO: 1953

A Review of the Annual Report of the Director-General

The Annual Report of the Director-General for 1953 [1] is a realistic evaluation of some of the world's basic health problems as well as a record of a year's accomplishments. In its fifth year of existence, WHO began to gain a true picture of the health needs of each of its six regions. This knowledge, in turn, brought about a shift in emphasis in the Organization's activities: while control of "mass diseases" continued to be a major aim, more attention was paid to fundamental health needs, such as improvements in environmental sanitation, health education of the public, and, above all, training of health personnel. Long-range planning assumed greater significance, though in some regions "elasticity" in policies for the Organization's work was required to meet specific demands. Comprehensive projects, with the development or improvement of health services as the ultimate goal, were stressed in most of the regions even more than previously. In brief, a larger view of the world's health situation became apparent in WHO's work in 1953, and this is reflected in the Annual Report.

THE REGIONS

Africa

Africa is a continent in transition, vast and heterogeneous, inhabited by hundreds of different population groups varying in civilizations, customs, and ideals, and living in different climates and under different economic conditions. In attempting to aid in improving health on this continent, WHO has to be fully cognizant of this vastness and variety, and of their implications in adapting approach and practice to local conditions. The Annual Report gives the following description of the Region:

"Generalizations about Africa would . . . be difficult and misleading, but, in most of the countries of the Region, the African village will for a long time to come remain the centre of most health problems . . .

"The village, therefore, and not the 'nation', must be recognized as the unit on which planning must be based; plans must take account of the local customs and cultures of the people among whom the work is to be done, and methods derived from experience in other countries must be used with caution, with a mind ready to note unexpected reactions and quick to abandon or modify the assumptions on which the work was started, as local conditions and atmosphere may dictate . . .

"Seldom . . . can broad campaigns for the control of disease be undertaken with any prospect of general success. There is probably more promise in encouraging smaller health projects that can some day be taken over and maintained by the population itself—centres in which Africans will be taught and

[1] World Health Organization (1954) *The work of WHO, 1953: annual report of the Director-General to the World Health Assembly and to the United Nations* (*Off. Rec. Wld Hlth Org.* 51), Geneva. ix + 190 pages. Price: 10/-, $1.50, or Sw.fr. 6.—. Published in English and in French.

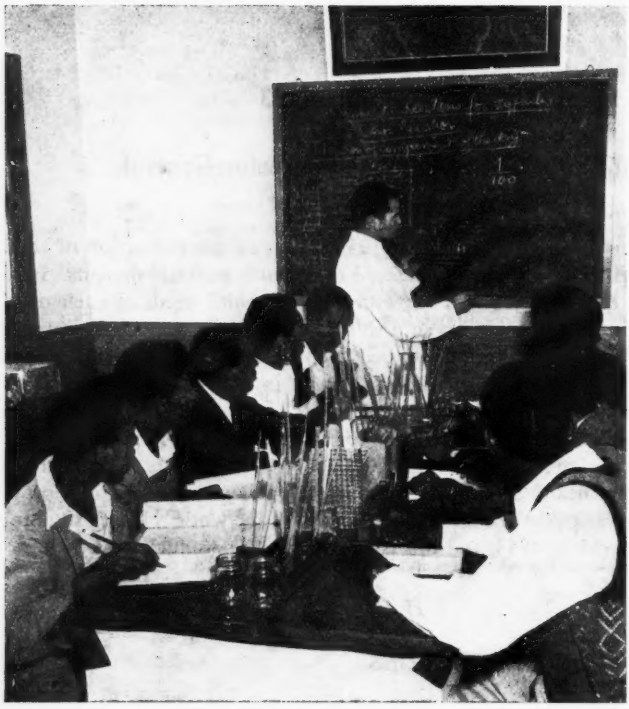


FIG. 1. TRAINING HEALTH PERSONNEL IN ETHIOPIA

At the Filoha clinic in Addis-Ababa, the laboratory adviser of a WHO team which is aiding in venereal-disease control teaches young Ethiopian students serological techniques.

trained, by other Africans whenever possible, and from which the new ideas will spread. Nothing will be gained by pressing the pace : thorough study and research are necessary before attempting to introduce any plan . . .

" In Africa WHO, in co-operation with the existing health services, some of which have many years' experience, therefore has the following preparatory tasks : to find out the people's ideas about the nature and origin of diseases and the reasons for the methods they have adopted to deal with them; to persuade the people that they can receive benefit from new techniques and the discoveries of science; to teach their leaders what is economically practicable; to stimulate the training of Africans, particularly in medicine (and its relation to social and economic conditions) and sanitary engineering and in the meantime to select and train non-African doctors willing to assist in the development of the continent; to co-ordinate the health work that is going on, and to prevent the disadvantages which might follow the industrial revolution now in progress. The regional office has made a beginning in these tasks."

Guidance in these tasks is furnished by a small group of regional public-health officers, a social anthropologist, and a sanitary engineer. This group develops plans and advises field staff in such a way as to facilitate the approach to the people and avoid clashing with local customs and conditions. Technical advice is provided by the chiefs of sections at Geneva headquarters.

The Americas

" The socio-economic and health conditions of the countries of the Americas are extremely varied, but the difficulties of adapting the general principles of public-health administration to these conditions are reduced by the growing appreciation that the most important form of international

assistance in health is the strengthening of the fundamental public-health services of national, provincial and local governments." Efforts to aid in this "strengthening" process entail emphasis on health education of the public, improvements in sanitary conditions, particularly in rural areas, and the training of medical and para-medical personnel.

The so-called "mass diseases" continue to be a problem in the Region, from the standpoint of social and economic development as well as of health. The control of such diseases—gastro-intestinal infections, malaria, tuberculosis, bilharziasis, yaws, and ankylostomiasis—is, however, being undertaken within the framework of attempts to improve general conditions, including nutrition and education.

The Annual Report notes the progress which is being made in the Region :

"In the Americas there has been a definite increase of interest among governments in strengthening and expanding health services for their people. The causes would be difficult to identify and evaluate, but among the general factors are a substantial increase in industrialization . . ., the value of industrial production now exceeding that of agricultural production by 36 per cent, and a general increased interest in public services affecting the welfare of the people. Among the more specific factors are a larger number of qualified public-health officers trained under programmes of international organizations, governmental and non-governmental, and now occupying leading posts in their countries, and the stimulus and assistance given by international organizations in developing health programmes."

South-East Asia

In South-East Asia, the rapid expansion of health work has been accompanied by some sacrifice of long-term aims to immediate pressures. "Popular demand for direct medical services has forced governments into programmes for special ends which may not be the most appropriate step in long-term planning. Some countries with scanty local resources are overloaded with commitments for such popular programmes, so that the funds and manpower remaining are insufficient for founding a solid health service." A concomitant problem, particularly in some of the better developed countries, is a trend towards providing for curative measures at the expense of work which would be more fundamental in nature and which would eventually have more far-reaching effects. Under these circumstances, WHO must try to encourage and support governments in resisting such tendencies and in making long-range plans.

WHO's role as a co-ordinator is especially important in South-East Asia, where several bilateral agencies are extremely active. Close liaison with the Foreign Operations Administration (FOA) of the USA has, for instance, proved useful in malaria control in Nepal. The presence of WHO area representatives facilitates the task of co-ordination.

Among the major problems of the Region are poor environmental sanitation and shortage of trained health personnel. The Organization is increasingly being asked for aid in attempts to improve sanitary conditions, and it is hoped that by 1955 demonstration and training teams in environmental sanitation will be operating in all countries of the Region. With regard to health personnel, the serious lack of doctors, nurses, sanitarians, and all types of auxiliary workers makes assistance to training institutions one of the principal functions of WHO. In addition, particular attention is given to organizing national training courses on special subjects, either as specific projects or as part of the work of demonstration teams. About 65 courses of this kind, ranging in length from one week to one year, were organized with the help of WHO in 1953.

In considering the future work in South-East Asia, the Annual Report states :

". . . it is probably true to say that work in the Region is approaching the stage of getting to grips

with the more basic health needs of the countries, and it is becoming necessary to provide for the greatest latitude in regional programme planning and for the possibility of making unexpected changes at short notice, in order to meet changing developments and to fit [the work] into existing or projected national plans."

Europe

WHO's activities in Europe continue to take the form mainly of inter-country programmes of an educational nature. These included, in 1953, special studies on such a wide variety of subjects as health visitors, the effects on child development of separation from the mother, perinatal problems, and school health services; group training courses on anaesthesiology, insect control, milk quality control, industrial hygiene, public-health administration, rehabilitation of handicapped children, social paediatrics, thoracic surgery, tuberculosis, and venereal-disease control; and a number of conferences, symposia, and seminars on various subjects—health education, insect control, the mental-health aspects of public-health practice, occupational health, preventive and social medicine, and public-health nursing.

"Within the countries themselves, there is widespread interest in . . . strengthening national training institutions, particularly in post-graduate public-health training (in Austria, Greece, Italy, the Netherlands, Turkey and Yugoslavia), nurse training (in Turkey) and psychiatry (in Denmark). WHO helps with these programmes in several ways : regional health officers assist in programme planning and development; visiting lecturers are provided; fellowships are awarded to members of the teaching faculty; teaching equipment is supplied; and medical library services are strengthened."

The fellowship programme "remains a cornerstone of WHO's work in Europe", though, because of financial difficulties, there was a decline in the number awarded in 1953, particularly in those awarded from Technical Assistance funds.

In Europe, as well as in other WHO regions, it is beginning to be possible to take a broader view of health problems and how they can be met. To quote from the Annual Report :

"The co-operation from Member Governments in programme planning is now extremely active, and the resulting international action is beginning to come much closer to the need . . . The emphasis in the future should certainly be on fewer and better programmes. Of particular importance is the assistance which WHO is giving—and will increasingly be requested to give—in relating the general conclusions of a regional study, conference or seminar to the needs of individual countries and to their posssibilities for improving techniques. To this extent, some shift in emphasis may be expected in the future towards programmes of direct assistance to countries which will maintain the most valuable elements of inter-country work."

Eastern Mediterranean

Though there are certain health problems common to all the countries of the Eastern Mediterranean Region, the basic concern—development of health services—must be considered from two viewpoints since there are two distinct groups of countries : those in which there are, practically speaking, no health services and in which WHO must aid in laying the foundations for their establishment, and those in which services exist but are in need of improvement. To deal with both of these groups of countries requires "elasticity in programme planning".

The trend in the first group, in which no real public-health services have yet been formed, is towards the increasing use of WHO teams to do the initial work on projects. Though the governments may be unable to spare staff for this work, even to the extent of providing a matching national team at the outset, they usually suggest what needs to be done and may know how it should be done. For example, government resources may be inadequate for training much-needed auxiliary personnel; with the help of WHO, trainees can be sent abroad for study or be given instruction as part of demonstration

FIG. 2. MALARIA CONTROL IN LEBANON

Malaria vectors are collected in a WHO-assisted control campaign in Lebanon. This cone-shaped erection placed over a well traps the mosquitos as they emerge from the nymph state.

projects; within a few years, the work may become " a growing project maintained by the government ". Another type of aid which is valuable for these countries is the provision of public-health advisers who can guide governments in securing " a proper balance of expenditure between curative and preventive health work " and in planning essential services.

In the second group of countries, " WHO can give assistance by providing fellowships and advice to governments . . . In those countries which already have some public-health system, one of the greatest needs is for the development of public-health laboratories—at first centrally, and later in municipalities or provinces. More attention should also be given to central statistical services, including those for public-health statistics."

Western Pacific

As in most of the regions, one of the greatest problems in the Western Pacific is the need for personnel trained in public health. The Annual Report gives a striking statement of this need :

" In one country, with a population of over a million, there is only one qualified physician; in another, with a population of three and a half million, the personnel trained in public health is no more than six. In several of the territories, practically all the public-health workers are brought from elsewhere.

" In contrast to this situation, there exists in some other countries a great wastage of trained manpower. Instead of being utilized in government service, many men trained in public health are compelled to enter private practice because the salaries offered by governments are so unattractive . . . "

Because of this need for health personnel, WHO assistance is given to a number of

FIG. 3. BCG VACCINATION IN TAIWAN

Schoolchildren in Taiwan line up for BCG vaccination in a WHO/UNICEF programme of tuberculosis control.

educational institutions in the Region—e.g., to the Institute of Hygiene of the University of the Philippines in Manila, to the Department of Social Medicine and Public Health of the University of Malaya in Singapore, and to the Ecole d'Officiers de Santé in Phnom-penh, Cambodia. In addition, fellowships are awarded; and seminars, training courses, and conferences are sponsored.

In November 1953, 39 projects on different health problems were in operation in the Western Pacific Region.

With regard to present trends in the Region, the Annual Report emphasizes the importance of co-ordination, not only between the different relevant authorities in a country, but also between international agencies. In several countries of the Western Pacific Region, committees have proved to be an effective means of assuring co-ordination, and this procedure "appears well designed to make clear to all national and international bodies the long-term implications of particular projects . . . ". The hope is expressed in the Report that this method of joint action will both accelerate the shift of emphasis from individual field projects to the general development of public-health services and give proper weight to WHO's role as the directing and co-ordinating authority in international health work.

GENERAL REVIEW OF 1953

This year's Annual Report is a departure from those of previous years in that the detailed description of projects undertaken, in operation, and completed is presented in the form of a concise list giving all the essential information. The body of the Report consists of a general review of developments in each section of the Organization and in each of the WHO regions, together with an evaluation of present problems and future trends. Individual projects are described only for illustrative purposes and as being representative of the type of work in progress.

Another part of the Report is devoted to co-operation with other organizations, dealing with WHO's activities as a co-ordinator and with the Expanded Programme of Technical Assistance for Economic Development.

COMMUNICABLE DISEASES

" Communicable diseases still present serious health and economic problems in many parts of the world, particularly in the less developed areas. They cause incapacity, disability and death in all age-groups, but especially in children and young adults, and reduce the working potential of the population.

" WHO at first concentrated its attention mainly on those diseases for which mass control measures either existed or could be readily developed by applying existing knowledge; later, widespread interest in other diseases, especially virus diseases, changed the attitude of the Organization, and its function as international co-ordinator in the control of all communicable diseases became more important."

Three conclusions emerge from the experience of the past five years in research on, and control of, communicable diseases :

1. Certain communicable diseases, such as smallpox, can be controlled : all the necessary technical knowledge is available, and all that is required is the organization to apply it. In the case of diseases such as typhoid, paratyphoid, dysentery, and cholera, control is possible through the application of sound sanitation practices.

2. Other communicable diseases " can be brought to a level where they are no longer major public-health problems ". Examples are malaria and the treponematoses : in most areas of the world, the reduction in prevalence of these infections depends only upon organization and funds.

3. " Internationally co-ordinated research can sometimes obtain quicker results than national research alone . . . ".

Among the many considerations which must determine future policy and practice in communicable-disease control are (*a*) assessment of the work done, (*b*) adaptation of new control methods to mass application in the field (e.g., the use of a single injection of penicillin with aluminium monostearate for the control of the treponematoses), and (*c*) the development of new measures for the control of diseases for which satisfactory methods are not yet available (e.g., influenza, poliomyelitis, brucellosis, Q fever, leprosy, and parasitic diseases).

WHO is at present working on a large number of communicable diseases; and, in the immediate future, it must confine itself to the most important of the problems on which it is already engaged.

Malaria

At the close of the year, WHO was assisting in malaria control of 21 countries. Projects had been started in Brunei, the French Cameroons, and Liberia; in the Terai area in India, in Viet Nam, and in Lebanon, the Governments had taken over work begun with WHO aid and were expanding malaria-control efforts.

Typical of the Organization's activities in combating malaria is the help being given in Burma :

" In Burma malaria is among the greatest public-health problems and an obstacle to social and economic development. About seven and a half million persons, nearly 40 per cent of the population, are affected. At the request of the Government a WHO team, including a malariologist, an entomologist and a sanitarian, was sent in May 1951 to demonstrate modern methods of malaria control and to help build up and train staff for a national malaria organization.

" Some months were spent in preliminary work and surveys, and the district of Lashio, where the spleen rate among children was 90 per cent, the parasite rate 26 per cent and the infant parasite rate about 56 per cent, was selected for the demonstration. Work started in early October 1951.

" The project has therefore been in operation for a little over two years, and is being continued. The first four months were spent in epidemiological and entomological surveys, an area of 800 square miles with a population of about 53,500 was chosen for the first year's work, and in the second year the area was extended to 2,600 square miles, including several small towns, and a population of 110,000. *Anopheles minimus* has been proved to be the vector, and the main transmission season appears to be from July to December. After the first year's operations, 173 blood smears of infants were examined, and not one was positive; there was a 26 per cent reduction in spleen and parasite rates, and the vector species was reduced by about 90 per cent as compared with unsprayed areas.

" This project, by providing training for malariologists, entomologists, and malaria assistants and other auxiliaries, has stimulated and helped the

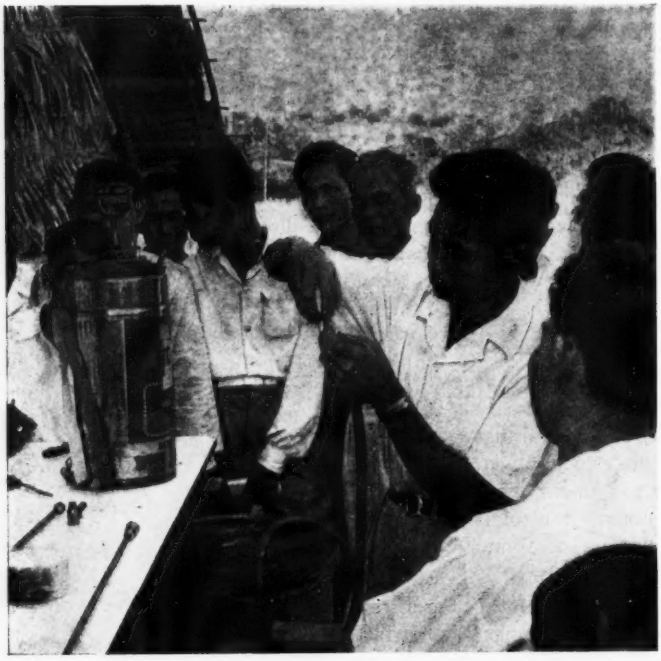


FIG. 4. MALARIA CONTROL IN CAMBODIA

Members of the WHO malaria team in Cambodia demonstrate methods of DDT-spraying to the future health educators of Cambodia, Viet Nam, and Laos.

Government's five-year plan for country-wide malaria control, with which a beginning was made in 1953. Malaria control is now popular, and control units can move freely, even in areas where lawlessness prevails."

In addition to giving direct aid in projects of this type, WHO offered training of various kinds to meet the increasing demand for assistance in strengthening national malaria-control organizations, emphasized the functions of demonstration teams in providing systematic practical training in malaria control, and helped malaria institutes and centres for training in insect control.

It is noted in the Annual Report that 1953 may prove to be a turning-point in the history of WHO's policy in malaria control, in view of certain developments during the year. Recent experience in Greece has suggested that, after malaria has been under control for a few years, active antimalarial measures can be safely withheld, provided that there are sound criteria for deciding when the measures should be discontinued and that adequate safeguards are provided. This possibility began to be given serious consideration, and its implications for malaria-control policy are foreseen :

" The prospect of discontinuing a residual insecticide campaign after a few years of malaria control will encourage governments to establish nation-wide schemes and will perhaps induce others to provide assistance under international or bilateral schemes. Clearly, the larger the area under control, the safer discontinuation would be, and in a control programme it is therefore technically and economically desirable to cover all malarious territories of a country, and possibly those of adjacent countries. Moreover, the fact that in some countries in 1953 the local malaria vectors had developed DDT resistance after several years of spraying campaigns suggests that programmes of malaria control for a country or group of countries should be planned so that the application of the insecticides could be withheld before the time when resistance might develop (never less than five years, so far as has been reported). Obviously, when malaria transmission has ceased, this does not imply that the anopheline vector species has been eradicated; indeed, the anopheles density may even be nearly as high as before control. If subjects carrying malaria parasites come into the country, the transmission may be started again, but this danger would decrease in direct proportion to the number of neighbouring countries from which malaria was also eradicated. When active malaria control is interrupted, it will have to be replaced by a policy of defence against the reintroduction of malaria, and the prevention—or immediate suppression—of transmission. For this purpose, it will be necessary to ensure the adequate and immediate notification of new cases of malaria and the decentralization of facilities for diagnosis and for epidemiological research; and, in case of an epidemic it may be necessary to resume the insecticide spraying (which is why the campaign should be withheld when the insecticide is still active on the vector species) and the use of chemotherapeutics. Fortunately, some modern antimalarials can guarantee radical cure of the two main malaria infections in a very high percentage of cases, and some others could be of the greatest assistance in the event of such an epidemic."

During the year, WHO published a monograph on malaria terminology [2] and assisted in research on the susceptibility of anophelines to insecticides and on the sorption of insecticides on mud walls.

Treponematoses and venereal infections

WHO aid continued to be given throughout 1953 in mass treatment programmes for the control of treponemal diseases and in demonstration and training projects. By the end of the year, more than 15 million persons had been examined and more than 4 million had been treated with penicillin. In some countries yaws control had reached the consolidation stage; in India, Indonesia, and Thailand, projects were progressing satisfactorily; and in Bechuanaland, Laos, and Liberia, control campaigns had been started. WHO advisers were withdrawn from bejel-control activities in Iraq, but trained national personnel and a strengthened health service continued and expanded the work.

[2] Covell, G., Russell, P. F. & Swellengrebel, N. H. (1953) *Malaria terminology*, Geneva (*World Health Organization : Monograph Series* No. 13). Price : 5/–, $1.00, or Sw. fr. 4.—

FIG. 5. YAWS CONTROL IN INDONESIA

Examinations for yaws lesions in a WHO-aided campaign against yaws.

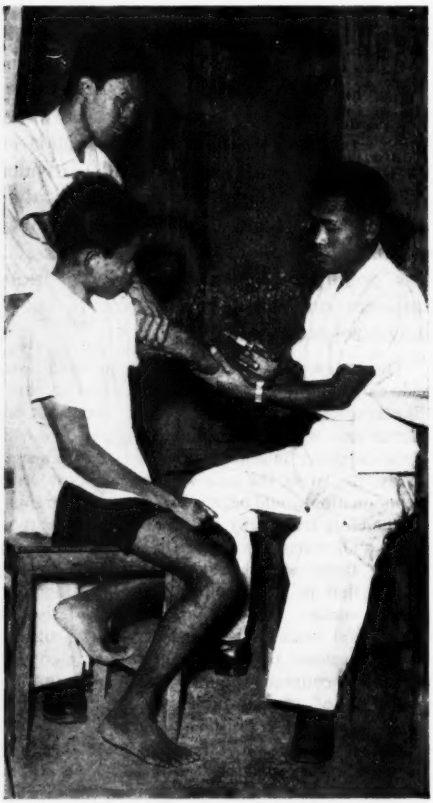
The experience in mass treatment of treponemal diseases during the past three years has resulted in improvements of techniques and consequent reduction in costs. It has been calculated that the cost per person examined in the mass campaigns has been approximately $0.25, and per person treated with penicillin, about $1.50. These figures include expenditures for personnel, drugs, transport, administration, and all other items, by health services, WHO, and UNICEF.

In evaluating the results of these efforts, the Annual Report states that they have proved that "it is possible to control treponemal disease by mass treatment". "It has been demonstrated that, by a carefully planned and systematically carried out project, infectiousness can be completely suppressed and the incidence of the disease reduced practically to the point of eradication."

Progress has been realized, too, in the control of venereal infections:

"Demonstration, survey and training projects, to assist governments to develop their programmes

FIG. 6. YAWS CONTROL IN INDONESIA



Another step in the WHO team operations: blood samples are taken and penicillin injections given.

for the control of venereal diseases, have gone forward in ten countries. In two, Egypt and India, projects of this kind were completed, the teams leaving behind them much information on the extent and nature of the venereal-disease problem, a wider appreciation of modern diagnostic and therapeutic procedures, cadres of trained national personnel and strengthened health services."

Tuberculosis

" The primary aim in tuberculosis control is to decrease the number of healthy people who contract a tuberculous disease... ". This entails two lines of approach : detecting sources of infection and neutralizing or minimizing the spread of infection from them, and applying measures aiming to increase resistance to tuberculosis among the healthy people of the community.

In 1953, WHO helped to start or to extend tuberculosis-control services in 24 countries, mostly in the tropical or subtropical zones. The work consisted largely of two types of projects : aid was given, jointly with UNICEF, in carrying out 21 BCG vaccination campaigns, and, also with UNICEF in some instances, in establishing 16 demonstration and training centres.

For revealing cases of infectious pulmonary tuberculosis, the Organization has established a " standard examination " which may be used effectively on large population groups at relatively low cost and which can, for the most part, be applied by lay technicians. This examination consists of a tuberculin test (Mantoux 5 International Units), chest X-ray (70-mm film), and

FIG. 7. TUBERCULOSIS CONTROL IN HONG KONG

A little boy from a Hong Kong orphanage receives a tuberculin injection.

examination of sputum and laryngeal swab for tubercle bacilli.

In BCG vaccination also, WHO is now using methods that can be applied by auxiliary personnel and that involve relatively small expense. A typical example is a campaign undertaken in India :

"In the BCG project in India . . ., over ten million children and young adults were tuberculin-tested in 1953, and over four million non-reactors to tuberculin vaccinated by about 65 teams, each consisting of one doctor and six 'BCG technicians'. The work, including the tuberculin testing, the reading of the tests and the vaccination, was done by these technicians—lay people without medical or paramedical background, who have been given specific training in the technique and the organization of the work. For this project in India the total expenditure has been about US $350,000 (three and a half cents per person tested and ten cents per person vaccinated), of which US $50,000, or one-seventh of the total, came from international assistance. A check system has been established to ascertain the result of the mass vaccination in terms of degree of tuberculin allergy induced by the vaccination and complications resulting from it, and this study is being carried out by a specially trained team."

Other special studies are being made by the Organization through the Tuberculosis Research Office in Copenhagen and with the aid of other institutes and of WHO field teams. Consideration is also being given to the problem of obtaining internationally comparable statistics on tuberculosis; the standard examination referred to above is being used towards this end.

In tuberculosis control, as in many other health programmes, the need for a broader approach is foreseen :

"In the future, international agencies will be concerned less with emergency measures for controlling tuberculosis and more with helping governments to develop permanent, well-balanced public-health programmes. This broader approach must take into account some important changes in the problem in recent years. Firstly, mortality from the disease has been dropping rapidly almost everywhere, for reasons that are far from clear. Secondly, the advent of potent new antituberculosis drugs may well lead to an entirely new approach : because of the tremendous potentialities of such drugs for rendering active cases non-infectious, it is possible that public-health programmes will in future be directed more to the prevention of infection than of clinical illness. Finally, WHO is now assisting with programmes in countries where little is known about the frequency and, possibly, the special characteristics of tuberculosis . . . International research and international health services must respond to changing needs and new opportunities—and direct their programmes accordingly."

Veterinary public health and zoonoses

WHO continued to help individual countries in the control of zoonoses and to co-ordinate research and sponsor exchange of information on this group of diseases. Particularly outstanding were developments in the control of rabies. WHO-sponsored field trials of chick-embryo vaccine in combating rabies in dogs in Israel and Malaya demonstrated the efficacy of this vaccine and brought the incidence of the disease in these countries to the lowest levels in the past 25 years. Important advances were also made in knowledge of the use of combinations of hyper-immune serum and vaccine in the prevention of rabies in man.

Epidemiological surveys on the presence of Q fever were continued in 28 countries. The Organization made a small grant to the University of Cambridge to assist in work on producing cheaper antigens for diagnosis of this disease and started co-ordination of research on the natural reservoirs of the micro-organism. Aid was given to Spain in efforts to control leptospirosis, which causes much disability and loss of manpower in the rice fields of the country. Problems in brucellosis and bovine and avian tuberculosis were under joint study by WHO and FAO, and a report on a European conference on five of the zoonoses was published by the two organizations.[3] Information was supplied to governments on various other

[3] World Health Organization (1953) *Advances in the control of zoonoses*, Geneva (*World Health Organization : Monograph Series* No. 19); also published as *FAO Agricultural Series* No. 25. Price : 15/–, $3.00, or Sw. fr. 12.—

CHANGING PRINCIPLES AND PRACTICES IN COMMUNICABLE-DISEASE CONTROL

— The introduction of antibiotics has made control possible by treatment on a mass scale. Further investigations during the year with broad-spectrum antibiotics have not essentially added to the possibilities of control.

— The insecticides with residual effect have proved their value, in malaria and vector control in general and specifically in the control of typhus. Studies on resistance of vectors to insecticides and on the sorption of insecticides on mud walls have been continued.

— In tuberculosis control, WHO's policy has been directed towards avoidance of the spread of infection. Mycobacterial resistance and side-effects impose caution and discrimination in the use of antibiotics; experience this year has confirmed the limited applicability of isoniazid.

— Although the value of gamma globulin in controlling measles and infectious hepatitis is firmly established, care should be taken to avoid premature conclusions as to its usefulness, on a large scale, in poliomyelitis. Work on developing effective poliomyelitis vaccines is still in the experimental stage.

— In leprosy control, the use of sulfones for mass treatment is under investigation. Institutional isolation is no longer considered the only effective method of control : the finding and ambulatory treatment of early cases is sounder public-health practice.

— For bilharziasis, it is realized that, although the newer molluscocides are promising, control by molluscocides is not sufficient in itself. Further ecological study of the snail vectors is necessary.

— The value of internationally co-ordinated research in the control of virus diseases has been proved : through it the type responsible for the 1953 outbreak of influenza was quickly recognized. It has also been essential to the delineation of yellow-fever areas. Investigations of the temperature resistance of dried smallpox vaccines are being continued. The work on standardizing diagnostic methods and laboratory procedures is also continuing, and simple, effective laboratory methods for application in the field are being sought.

— For the zoonoses, in addition to the chick-embryo vaccine for rabies, ... brucellosis vaccines which seem promising are being developed, and a field trial of their use in sheep and goats is under way.

(Quoted from the Annual Report of the Director-General, 1953)

zoonoses—histoplasmosis, toxoplasmosis, trichinosis, and tularaemia.

Food hygiene is receiving an increasing amount of attention in many countries. WHO sent consultants to Burma, Ceylon, Costa Rica, and India to advise on problems of meat hygiene. UNICEF, FAO, and WHO jointly sponsored a training course on the different aspects of milk processing for interested personnel in Europe, where " milk is beginning to take its place as the most important standard article of ... diet ", thanks to the eradication of disease in animals, pasteurization, and improved sanitation.

Virus and rickettsial diseases

" WHO's programme [on the virus and rickettsial diseases], which began with the establishment of an international network of influenza centres, has now reached a stage at which its scope can be gradually broadened to cover other virus diseases for which international co-ordination of research is needed, so as to provide in each country a nucleus which may eventually be developed as part of a public-health laboratory service . . . In 1953, . . . certain laboratories within the network were asked to co-operate in work on poliomyelitis. Other diseases on which selected laboratories are being or will be encouraged to co-operate, either for diagnosis or for research, include smallpox, diseases caused by the lymphogranuloma-psittacosis-trachoma group, diseases caused by viruses found in the stools, such as the Coxsackie group, and virus hepatitis. Flexibility is essential in developing this programme, for the requirements for various virus diseases differ in detail, though they are similar in principle."

In influenza, experience gained during the widespread epidemic of influenza A that took place in the northern hemisphere in the early part of 1953 was particularly valuable. Detailed studies of the epidemiological information received and of the viruses which were isolated are still in progress and will eventually be reported. A symposium on influenza, containing important reviews on various aspects of the disease, was published in the *Bulletin*[4] and in the *Monograph Series*.[5]

Towards the end of the year, work on poliomyelitis was started. A laboratory capable of making the necessary studies will be designated in each region or continent; later, the network will be extended and developed in somewhat the same way as was done with regard to influenza.

The immunity survey begun by WHO in 1950 to delineate the southern boundary of the yellow-fever endemic zone in Africa was

[4] *Bull. Wld Hlth Org.* 1953, **8**, 591-824

[5] World Health Organization (1954) *Influenza—a review of current research*, Geneva (*World Health Organization : Monograph Series* No. 20). Price : 17/6, $2.50, or Sw. fr. 10.—

FIG. 8. CAMPAIGN AGAINST EYE DISEASES IN MOROCCO

People of the Ouarzazate district of Morocco (French Zone) are assembled for a medical examination as part of a campaign against trachoma and other eye diseases, which are particularly prevalent in Mediterranean countries.

completed during the year. "In this survey, some twelve thousand samples of human blood were collected in Angola, Bechuanaland, Belgian Congo, Mozambique, Northern Rhodesia, Nyasaland, Southern Rhodesia, Tanganyika and the Union of South Africa, and tested for antibodies to yellow-fever virus by the Virus Research Institute at Entebbe and the South African Institute for Medical Research at Johannesburg." Campaigns against *Aëdes aegypti* and other insect vectors of diseases were carried out in Colombia, Guatemala, Honduras, Nicaragua, and Panama. (For a description of the Colombia project, see page 172.)

Increasing assistance began to be given to efforts to control trachoma. WHO consultants made surveys in Iran, Morocco (French Zone), Taiwan, and Yugoslavia. The adviser sent to Taiwan also visited a number of other countries in the Western Pacific Region. Pilot control projects were started, in collaboration with UNICEF. Mass treatment campaigns were undertaken on a limited scale in Morocco, Taiwan, and Tunisia. In addition to giving direct aid of this type, WHO began to co-ordinate studies on subjects ranging from virological research to investigations on histopathology and on the effect of cortisone in cases in which clinical cure has apparently been obtained. The Organization was also instrumental in initiating an exchange of research workers between Tunisia, Morocco (French Zone), Japan, Egypt, and Iran.

A study of typhus in northern India was made with a view to planning control measures, and projects were continued in Afghanistan and Peru. Work was also continued on smallpox (e.g., investigations on dried smallpox vaccines and on the use of gamma globulin) and virus hepatitis.

Other communicable diseases

Diphtheria and pertussis : Immunization campaigns were continued, with the support of WHO and UNICEF, in Brazil, Chile, and Colombia; and a campaign against pertussis was started in Mauritius.

Typhoid fever : Aid was given to Yugoslavia in a field trial of typhoid vaccine.

Leprosy : WHO helped the Governments of Burma and Ethiopia with surveys followed by pilot projects of mass treatment. Consultants visited Turkey and Thailand to make surveys and recommend methods of control. Progress in the immunology and treatment of this disease is bringing about a change in policies—"institutional isolation is being replaced by better organization of health services to ensure the early recognition of cases, and by ambulatory treatment".

Bilharziasis : WHO continued to encourage the study of the snail vectors of the disease and to aid in control projects in Egypt and the Philippines.

PUBLIC-HEALTH SERVICES

Strengthening national health administrations

The strengthening of national health administrations is the "fundamental objective of WHO's assistance to governments". Differences in the economic and cultural conditions and in the social and economic development of countries necessitates the use of a variety of methods to achieve this objective, and progress is often slow.

During the past year, attention has been directed to (1) co-ordinating existing national and international health work; (2) stimulating the improvement and reorganization of health services; and (3) surveying, planning, and demonstrating integrated health services in local areas. Specific examples of the type of aid given in the improvement and development of health administrations and

services are provided by the work done in Burma, Colombia, and Panama :

" On the basis of recommendations of WHO, the Government of Burma . . . established a Ministry of Health and consolidated its national health service. The Burmese Government . . . also authorized an increase of 40 per cent in the salaries of medical and para-medical staff in order to encourage them to work full-time in government service. In Colombia, a survey of the municipal health administration in the city of Bogotá was made by a WHO consultant. In Panama, a WHO team completely reviewed and studied the rural health services, with a view to their systematic planning and organization for the whole country; and, to develop a model health unit in the area of La Chorrera, a wide economic, social and health survey was made, in the course of which 400 families in the city itself and others in the adjacent rural district were interviewed."

Training of professional and auxiliary workers also forms part of the Panama project : in 1953, a five-month programme of training for X-ray technicians and a first training course for sanitary inspectors were completed; a course for public-health nursing auxiliaries was started; and other courses for doctors, dentists, nurses, and laboratory technicians were in preparation.

Environmental sanitation

The Organization's environmental sanitation work widened considerably in scope during 1953. Direct assistance to governments aimed " to improve teaching and training, to strengthen national health administrations by advisory services, and to demonstrate accepted procedures in sanitation and modern methods of insect and vector control ".

During the past three years, WHO has been particularly concerned with the training of national workers : experts have been provided to start training schemes or to assist in improving those already in existence, and fellowships for advanced study abroad have been awarded. Work of this nature is illustrated by aid given in a training course for sanitary inspectors in Liberia, which was completed in March 1953; a nine-month course for sanitary engineers which was started at the University of São Paulo, Brazil; and a four-month course for twelve sanitary inspectors from eight different countries which was given at the end of the year at the School of Public Health in Santiago, Chile.

WHO has also helped governments with specific sanitation problems, such as fly and other insect control, garbage disposal, and the study of sanitary conditions in and around airports. Malaria teams have usually included sanitarians, who, by their work, show the place of sanitation in malaria control.

An example of WHO aid in insect control is provided by the campaign which has been in progress in Colombia for some time :

" A programme of insect control has been going forward in Colombia. Its objectives are to eradicate *Aëdes aegypti*, the vector of yellow fever, at the same time controlling malaria and other insect-borne diseases, by systematic application of residual insecticides and larvicides.

" The work in Colombia has been a combined operation in which the Government, assisted by the Servicio Cooperativo Interamericano de Salud Pública of the Institute of Inter-American Affairs, has been responsible for the administration of the project, UNICEF has furnished some supplies and WHO has provided technical advice on malaria control and *A. aegypti* eradication.

" The area chosen for the initial work was the most difficult one in the country : the Caribbean zone. Surveys were made before the spraying was started in April 1952; a year later, as soon as the first spraying was finished, the second cycle was begun. The second operation was not handicapped by the difficulties which delayed the first, such as the lack of equipment and of well-trained personnel, and the work was carried out much more quickly. Surveys were made before and after each spraying to ascertain the incidence of malaria and the presence of *A. aegypti*. DDT spraying of walls was used where malaria was present, whereas water containers were treated with

FIG. 9. MALNUTRITION IN INDONESIA

A doctor and a nurse examine a child during a nutrition survey in Jakarta, Indonesia.

DDT by the perifocal method for the eradication of *A. aegypti*.

"The programme has shown that if work to eradicate *A. aegypti* is to be successfully combined with malaria control, it is necessary to make a close check, after the DDT spraying, for the presence of *A. aegypti* and to re-spray if required.

"It is still too soon for a complete evaluation of the campaign, since the area has just received its second spraying, but the results so far indicate that the programme is at least on the way to success. It is believed that the work of eradication of *A. aegypti* in Colombia is more than half completed. This programme will be expanded in 1954 and 1955 to other regions of the country where malaria is endemic."

Altogether, in 1953 WHO assisted in 35 projects in environmental sanitation, utilizing the services of 42 sanitation specialists in 37 different countries. In addition to giving this direct aid to governments, the Organization made numerous special studies, on subjects such as the susceptibility of lice to insecticides, and standards of water quality; and published a monograph, prepared by a consultant, on the toxic hazards of certain pesticides to man.[6]

[6] Barnes, J. M. (1953) *Toxic hazards of certain pesticides to man*, Geneva (*World Health Organization: Monograph Series* No. 16). Price: 7/6, $1.50, or Sw. fr. 6.–

Nutrition

WHO's work in nutrition continues to be concerned largely with protein malnutrition, endemic goitre, and problems in infant feeding. In 1953, the Organization participated, with FAO, in two regional conferences on nutrition: one, in Bandung, Indonesia, for countries in South-East Asia, and the other, in Caracas, Venezuela, for countries in both the Western Pacific Region and the Americas.

WHO consultants are helping to make a survey of the incidence of protein malnutrition in Indonesia. In India, the Organization will co-operate in efforts to control endemic goitre by the use of iodate for iodizing crude, sun-dried salt. Studies on endemic goitre in Latin America are being made through the Institute of Nutrition of Central America and Guatemala.

Education in the proper feeding of infants and children is an important part of the activities in most WHO/UNICEF maternal and child health projects. Particular attention is being paid to the role of the public-health nurse in this aspect of the work, since it is she who is in most direct contact with the mothers. Investigations of dietary customs and practices in various parts of the world are being undertaken by WHO.

Mental health

"It becomes increasingly evident that the methods which WHO has used to support the traditional branches of public-health work are not wholly appropriate for developing an international programme in mental health. In mental health, the Organization inherited from the permanent and emergency international health organizations which preceded it no secure foundations on which to build. In its first few years, therefore, it has been attempting to evolve methods which are appropriate to international action in this field."

One form of direct aid to governments in mental health work which has proved most valuable is the provision of the services of short-term consultants. By this means the Organization can put temporarily at the disposal of a Member State an expert of international standing, who can help national experts survey needs and plan services. The required services can, in the long run, be developed only by national personnel, and aid in the training of such personnel is often given through WHO fellowships. Visiting consultants may help in selecting candidates for these fellowships, as they did, in 1953, in Guatemala, Japan, Lebanon, the Sudan, and Syria.

Increasing attention was paid during the year to projects of benefit to more than one country, particularly to regional seminars on mental-health subjects. Among these were a seminar on alcoholism, held in Argentina; one on the mental-health problems of childhood, in Australia; another on the development of psychiatric services for the Eastern Mediterranean Region, in Lebanon; and still another on the mental-health aspects of public-health practice, in the Netherlands. "The success of these seminars suggests that this type of activity is particularly appropriate to WHO's mental-health programme."

In addition to sponsoring seminars, WHO participated in a number of meetings of groups which also included experts delegated by the United Nations and UNESCO. The results of a study made by a short-term consultant were published in a WHO monograph : *The African mind in health and disease*.[7] An inquiry on legislation concerning the treatment of mental disorders was sent to Member governments, and a critical survey of the replies received is being made, with a view to putting forward guiding principles which might be useful to governments that are contemplating changing obsolete laws on this subject.

In summarizing the experience of the Organization to date, the Annual Report states :

"The lesson to be drawn from the first five years of WHO's work in mental health is... that the programme is most likely to be successful when it helps to develop new knowledge to the point where it can be applied to the local needs, conditions and possibilities in particular countries, and when it facilitates the interchange and distribution of that knowledge. Studies at headquarters, meetings of experts, regional seminars and consultants to assist countries in studying their problems are the essential components of such a programme."

Maternal and child health

WHO's activities in maternal and child health are directed mainly towards giving advice on the improvement or establishment of relevant health services, through the assignment of consultants or visits of regional advisers; helping to train the necessary personnel; and studying, or participating in studies on, particular problems, such as premature infants, physically and mentally handicapped children, and school health services.

Considerable progress was realized in 1953 in integrating health work for mothers and children into general health services and into specific projects—e.g., in environmental sanitation, the control of communicable diseases, the improvement of nutrition, and

[7] Carothers, J. C. (1953) *The African mind in health and disease*, Geneva (*World Health Organization: Monograph Series* No. 17). Price : 10/–, $2.00, or Sw. fr. 8.–

health education. Examples of this integration can be found in rural health work that is going on in Ceylon, El Salvador, India, Taiwan, and Thailand.

WHO aid is especially needed and valuable in building up national training programmes for personnel to work in maternal and child health. International teams of doctors and nurses have been working with national staff in demonstration centres for this purpose in 20 countries, in most cases with UNICEF help as well. An illustration of this work is provided by the training programme in Pakistan, which is described at some length in the Annual Report :

" In 1947 the new State of Pakistan had very few medical or para-medical personnel and quite inadequate facilities for training. By 1950, there were only 15 nursing schools and 13 midwifery schools, and few other courses in public-health nursing. In maternal and child health there was on the average one trained woman worker for every 150,000 of the population.

" In this situation the Government gave priority to training for work in maternal and child health... it was decided to train auxiliary workers, to be called 'community health visitors'—young women of good education, trained for 27 months in maternal health, midwifery, and public-health and paediatric nursing. One trained health visitor for every 10,000 of the population, and the training of 30 per year, were taken as practicable objectives. These auxiliary workers were also given instruction in health education and the treatment of disease, as they would work where other services are rare, and were trained to teach and supervise the indigenous midwives (dais).

" The first training school for community health visitors was started in Lahore in 1951, with help from WHO and UNICEF. The project was based on the existing Punjab health school and made use of several of the Lahore hospitals for women and children; public-health work, including domiciliary midwifery, was done from two maternal and child health centres. An area outside Lahore was used to give each group of students experience in rural health work. WHO supplied fellowships and six international staff members, and UNICEF provided equipment.

FIG. 10. MATERNAL AND CHILD HEALTH IN PERU

The visiting public-nurse examines the mother, her new-born twins, and the other children of the family.

"The project received the full interest of local authorities at all levels...

"Schools of nursing, students from medical colleges and university students of political science have used the training facilities provided; the Institute of Hygiene has co-operated in some of the courses, and two trainee social workers from a voluntary organization were attached to the international team. These contacts were useful and have shown the influence that a project in one aspect of health can have on related services : the curriculum for the training in the centre was adopted by the Central Nursing Council for all Pakistan, and three other projects in maternal and child health—also assisted by WHO and UNICEF—were planned, closely following the pattern developed in Lahore.

"The project provided many services for the public, and the extent of community participation achieved is shown by the fact that 91 per cent of the mothers contacted paid an average of four visits to the centre; 72 per cent of the infants born were seen during the first week of life, and an average of nine home visits was paid to every infant contacted.

"Within a little over two years since the project started, 137 student nurses and community health visitors have completed the preliminary school training, 77 the midwifery training and 30 the full course for the diploma. The centre has also given short refresher and other courses.

"When this project was completed, in July 1953, the international staff left a fully developed and active training scheme, headed by local doctors and nurses."

Nursing

"The objective of the WHO nursing programme is to help Member governments to assess their particular needs and resources and to provide an increasing number of adequately trained nurses capable of carrying out the essential functions of their profession." With regard to the first of these two aims, WHO in 1953 helped six governments —Burma, Iran, Libya, Pakistan, Syria, and Thailand—to establish or extend the nursing divisions in their health administrations and to study their countries' immediate and long-term needs for nursing services. Aid in the provision of nurses took the form of training projects of various types : assistance to nursing schools was given by WHO nursing education teams to Afghanistan, Burma, Cambodia, Costa Rica, Malaya, Syria, and Taiwan; special courses were organized, with the help of WHO nursing instructors, in Burma, India, Malaya, Mexico, Thailand, and Turkey; in Israel, a WHO nurse-teaching mission gave a six-week course to 137 selected nurses; and WHO started training local instructors for courses for auxiliary nurses and midwives in Brunei, Ceylon, Costa Rica, El Salvador, Pakistan, Paraguay, Peru, Taiwan, and Thailand. In addition, nurses attached to teams combating disease or demonstrating methods in maternal and child health gave instruction to local nursing personnel. In all, 144 nurses of various nationalities were employed in field programmes, 54 working in schools of nursing, and 90 in demonstration and training centres.

In nursing, as in many other WHO programmes, national and international conferences are a valuable method of imparting new knowledge, of encouraging the exchange of information and experience, and of stimulating governments to improve their nursing services. A number of conferences were held during the past year :

"In 1953 WHO helped to organize conferences on nursing in the American, European and African Regions. In Rio de Janeiro, 272 nurses from 16 North, Central and South American countries met to discuss two problems of major concern to them—legislation for nursing and education for nurses. Nursing education was also discussed by representatives from 21 European countries, at a conference held in Switzerland in October. This group of 47 nurses from the hospital and public-health services was particularly concerned with methods of co-ordinating these two services, of strengthening team-work and of providing staff education. At a regional nursing conference in Kampala, Uganda, in September and October, the development of nursing education in the African Region was studied by representatives from 20 States and territories ... This was the first opportunity for representatives of such a large number of territories to meet in Africa for the exchange of information on the nursing problems of their territories."

Two special studies were continued during the year: one, on nursing legislation, resulted in the publication of a survey of recent laws concerning nurses in 22 countries;[8] the second, on the functions of the "assistante sociale" in France and the "health visitor" in England, was completed and will be reported on in 1954.

Other services

The rapid industrialization of many underdeveloped countries is being accompanied by many problems affecting the health of workers. WHO is therefore planning to give increased attention to occupational health and has undertaken a study of how its activities in this domain may be strengthened. Thus far, however, financial difficulties have prevented the implementation of some projects, though help has been given to Egypt, Finland, Iran, Turkey, and Yugoslavia in assessing relevant problems and developing suitable programmes. A European seminar on occupational health was held in Milan in September 1953. Close liaison has been maintained with the ILO, and several problems have been studied jointly.

In 1953, projects in medical rehabilitation were continued in India, Japan, Greece, and Yugoslavia; UNICEF aid was given to the latter two. Also with UNICEF, WHO helped in a project for the rehabilitation of physically handicapped children in Israel. Several countries received assistance on questions of medical care and hospital administration; and a study, made by a consultant, on rural hospitals was published as a monograph.[9]

A dental health consultant was employed by WHO for a short-term assignment early in the year. This consultant made a comprehensive study of the use of fluoride in the prevention of dental caries, visiting the USA and several European countries to gather information.

Two regional conferences on health education of the public were organized by WHO in 1953, one in London, at which 18 countries were represented, and the other in Mexico, at which there were participants from 11 countries. Consultant aid was given to a number of countries: Ceylon, Honduras, Sarawak, Singapore, and Turkey. The services of three anthropologists were provided to study the cultural characteristics of selected population groups in two of the WHO regions, in order to prepare the way for planning and developing health work. Two Arabic-speaking workers in health education were assigned to assist in maternal and child health programmes in Libya. Activities such as these are evidence that the importance of health education as part of health programmes is being increasingly recognized.

Health work among Palestine refugees

WHO continued to plan and direct the health work of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWAPRNE) and to provide a full-time medical officer, a malariologist, and a public-health engineer and consultants. The Annual Report for 1953 contains a review of the health situation and activities in the refugee camps during the year. It is noted, for example, that a widespread programme of immunization was undertaken: 261,200 smallpox vaccinations, 253,800 TAB inoculations, and 269,300 diphtheria inoculations were given. Malaria control was continued on a "maintenance basis" in the Gaza district. Nutrition was studied and improved. Also continued was

[8] *Int. Dig. Hlth Leg.* 1953, **4**, 463; see also *Chron. Wld Hlth Org.*, 1953, **7**, 292. Price of offprint: 2/–, $0,25, or Sw. fr. 1.—

[9] Bridgman, R. F. (1954) *L'hôpital rural—Sa structure et son organisation*, Geneva (*World Health Organization: Monograph Series* No. 21) (English edition in preparation). Price: 13/6, $2.00, or Sw. fr. 8.—

the training of selected refugees as paramedical personnel : during the year, 147 refugees received training to prepare them for work as nurses, medical orderlies, childbirth attendants, laboratory technicians, malaria technicians, sanitarians, or pharmacy attendants.

Eighty-one UNRWAPRNE clinics now serve the refugees, and there are more than 2,000 hospital beds available.

EDUCATION AND TRAINING

WHO's programme in education and training comprises three main types of activity : fellowships, assistance to educational institutions, and exchange of scientific information.

" WHO has now seven years of experience in helping to bring new skills, techniques and developments from the countries where they are available to those that lack them. Either students travel to the teacher (through fellowships) and thus learn in a foreign environment, or the teachers (consultants, teams) themselves go to teach the students in their own country . . .

" WHO has given help in establishing advanced training institutions in some countries where they were lacking or insufficient. In other countries, particularly those without facilities for training in medicine, nursing or sanitation, WHO has helped to prepare long-term plans to increase the nucleus of trained personnel and has granted fellowships for undergraduates in medical or related subjects. In 1953, 51 such fellowships were given to undergraduates of Bolivia, Ethiopia, Laos, Liberia, Libya and Saudi Arabia."

For the first time in seven years, there was no increase in the yearly number of fellowships granted by WHO, owing partly to financial stringency and partly to the fact that those who participate in conferences, seminars, and similar meetings are no longer reported as Fellows. An evaluation of the fellowship programme was begun during the year. In a preliminary, experimental study of some of the early fellowships, it was found that, of 140 on which data were available, nine were regarded as " wasted " and 131 as " successful ".

Aid to professional and educational institutions was expanded in 1953. Professors and teaching materials were provided for schools in a number of countries : Afghanistan, Ecuador, India, Indonesia, Pakistan, Paraguay, and Malaya (Singapore); in all, 16 WHO-appointed professors and one dean were working in medical and public-health schools during the year. In addition, 51 instructors in nursing education, appointed by WHO, were participating in 19 national projects.

Exchange of scientific information is fostered through seminars, conferences, symposia, and group-training courses, such as those mentioned in previous sections, and through visiting teams of medical scientists. An example of the latter is the teams of specialists which visited Indonesia and India in 1953. A new form of exchange has been started on a small scale—namely, the exchange of research workers to enable scientists engaged in related types of public-health research to visit one another's laboratories and exchange ideas.

WHO published in 1953 a directory of the 568 medical colleges in the world.[10] With the collaboration of 129 professors in 92 medical schools, the Organization prepared, for publication by UNESCO, a list of material necessary for teaching anatomy, histology, bacteriology, biochemistry, hygiene, morbid anatomy, physiology, and pharmacology. This list is designed to aid professors and schools in re-equipping, or buying new equipment for, their departments; it also provides, indirectly, information on the type and content of the teaching of these subjects in various medical schools.

[10] World Health Organization (1953) *World directory of medical schools*, Geneva. Price (clothbound): £1 5 s., $4.00, or Sw. fr. 15.–

Epidemiological and health statistical services

1953 was the first year in which the International Sanitary Regulations were in force. All but six of the active Member States of WHO are now parties to the Regulations; the position of several overseas and outlying territories is still to be defined. While a number of points regarding the application of the Regulations were referred to the Committee on International Quarantine for interpretation or recommendation, there was not one which required "arbitration".

The Committee on International Quarantine, at a meeting in autumn, reached a number of decisions: it approved the delineation of the yellow-fever endemic zone in Africa proposed by the Expert Committee on Yellow Fever, subject to the agreement of the countries concerned; it suggested an interim delineation for the Americas; and it recommended that the validity of the yellow-fever vaccination certificate should be nine instead of six years, that no certificate of vaccination against cholera be required of children under one year, and that, in notifications of rodent plague, "sylvatic rodent plague", which involves little risk to international traffic, should be distinguished from "domestic rodent plague".

During 1953, the new Epidemiological Cable Code (CODEPID) was completed and distributed to health administrations throughout the world. The Code, which came into general use on 1 January 1954, "is designed to ensure reliable, safe and economical telegraphic transmission" of epidemiological information.

WHO's work on health statistics continued to be concerned principally with (1) the collection and publication of health and vital statistics and of international studies based on them, (2) action to improve the quality and international comparability of such statistics and studies, and (3) advice on statistical methods to national health administrations and to units at headquarters and regional offices and in the field. Of particular note during the year was the conference of National Committees on Vital and Health Statistics, which has previously been reported in the *Chronicle*.[11]

Drugs and other therapeutic substances

Activities relative to biological standardization during the year included the establishment of new international standards for therapeutic, prophylactic, and diagnostic agents; preparatory work for the establishment of additional new standards and for replacing those nearly depleted; and a detailed study, by a consultant, of the arrangements for the distribution and use of standards, under the national control centre system, in the South-East Asia Region. Further steps were taken to facilitate the sending of biological materials by post.

The work of the International Salmonella and Escherichia Centre in Copenhagen continued to expand, and the International Blood-Group Reference Laboratory in London completed its first year of operation under WHO sponsorship.

Pharmaceutical specifications and nomenclature

Considerable progress was realized during 1953 in the preparation of Volume II of the *Pharmacopoea Internationalis*; work was started on a second edition of Volume I. A special study was made of the system for the selection of international non-proprietary names for drugs, and a "consolidated

[11] *Chron. Wld Hlth Org.* 1954, **8**, 7. Papers presented at the conference will be published in a forthcoming number of the *Bulletin*.

procedure " was established by the Executive Board. A list of 299 proposed international non-proprietary names was prepared and published in the *Chronicle*.[12]

Drugs liable to produce addiction

The Sixth World Health Assembly unanimously recommended that campaigns be undertaken to convince physicians and governments that diacetylmorphine (heroin) was not irreplaceable in medical practice, and that Member States that had not already done so should abolish the importation and production of this drug. The resolution of the Assembly was communicated to the Secretary-General of the United Nations for consideration and appropriate action.

WHO gave advice to several governments on synthetic drugs with morphine-like effect, on morphine preparations with prolonged action, and on questions of treatment. Investigations of the effect of khat and its addiction-producing qualities were started by the Organization. Alcohol as a drug was considered by the Expert Committee on Alcohol; [13] and drug addiction, with special reference to hashish, was discussed at a regional seminar on mental health, sponsored by WHO and held in Beirut.

CONSTITUTIONAL, FINANCIAL, AND ADMINISTRATIVE DEVELOPMENTS

Membership

During 1953, Nepal and Yemen joined the Organization, making the membership 84 —including three Associate Members.[14]

Financial position

The budget for 1953 was US $9,832,754, with an effective working budget of $8,485,095.

One of the major difficulties encountered by WHO during the year was the unexpected shortage of Technical Assistance funds : the Organization was allocated less than five million dollars, and the programmes which had been planned were expected to cost about nine and a half million. The Executive Board, at its January 1953 session, considered the resulting financial situation and decided that all resources available under both the regular budget and Technical Assistance funds should be taken into account in carrying out the Organization's plans for 1953. The Director-General therefore planned to use those resources to continue programmes already in operation. The UNICEF Executive Board agreed that UNICEF should pay certain costs for project personnel so that joint projects might go forward.

[12] *Chron. Wld Hlth Org.* 1953, **7**, 297

[13] *Wld Hlth Org. techn. Rep. Ser.* 1954, **84**; see also *Chron. Wld Hlth Org.* 1954, **8**, 144.

[14] This figure includes 9 inactive Members.

SUMMARY

In considering and evaluating the year's work as a whole, the Director-General, in the introduction to the Annual Report, summarized the situation thus :

" The year 1953 must be viewed as still part of the early history of the World Health Organization and hence as a year of growth, adjustment and consolidation. On all organizational levels, at headquarters and in the regions, further efforts were made to study —and apply as much as possible—the lessons which resulted from the trials and errors as well as from the achievements which characterized the first years of WHO's existence. I am sure that, as this Report for the year 1953 unfolds, its readers will find increasing evidence of activities having been planned and having been more adequately adapted to what has been emerging as one of WHO's most important goals : to contribute by all available means to the strengthening of national health administrations.

" Indeed, there can be no doubt that most of the projects developed during 1953 have a more concrete and a sharper definition than those of the early years of the Organization. It is also obvious that the criteria of realism have been guiding us more and more in the selection of techniques and methods through which these projects have been carried out. Above all, there is revealed a growing awareness in all of us of the need to plan WHO's role in promoting world health as comprising only one part—although admittedly a vital and central one—of the general framework of all national and international efforts to improve social and economic conditions throughout the world.

" In this process of the shifting of emphasis from activities designed to meet emergency situations to well-balanced programmes destined to satisfy long-term needs, some of the projects executed during 1953 may have lost part of the dramatic appeal which the earlier ones of the Organization had for both the technical and the lay public. But that loss is, in my opinion, largely compensated for by the increased efficiency the Organization has gained, thanks to better understanding of the various types of contribution it can make to the improvement of health and the attainment of greater prosperity.

" This new fact is, to a varying degree, reflected in many of the results achieved by WHO in 1953. That such advances could be made, despite the extremely serious and prolonged financial crises WHO had to face during the year, is further proof of its strength and dynamism."

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